Application No. 10/727,847 Response Dated 03/20/2008 Reply to Office Action of 12/21/2007

Agent's Docket No. 2173-162

## Amendments to the Specification:

Please replace paragraphs [0005], [0007], [0008], [0027], [0028], [0029], [0033], [0034] and [0035] with the following corresponding amended paragraphs:

[0005] A problem frequently occurs with current voicemail notification when a mobile user moves from one network boundary to another (e.g. one mobile switch, system, network or registration zone to a second mobile switch system, network or registration zone). In such boundary crossings, the wireless device is usually required by the network to register with it and a notification message is sent that a voicemail message is waiting. In such instances of mobility where the wireless device is required to register with different networks, the wireless device can receive the same voicemail message notification repeatedly. In a data device, the same notification message appears multiple times in its incoming message folder. The problem gets worse at network boundaries where the user may go back and forth between two networks and each transition is accompanied by the same voicemail notification message.

[0007] The present invention seeks to overcome the deficiencies in the prior art by providing a method to eliminate multiple notifications for the same voicemail message. A voicemail notification from a mobile switch to a wireless device includes information about the number of voicemail messages that are waiting to be heard by the user. In one embodiment of the present invention, the wireless device stores the number of pending voicemail messages as directed by the most recently received message from the network. Whenever it receives a new voicemail notification message, it immediately sends an acknowledgement back to the network, which simply indicates that the notification message was successfully received by the device. The device then compares the number of voicemail messages waiting as received in the notification

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message to that stored on the wireless device. If the device detects the same number of voicemail messages as identified by the current notification message, the device will realize that this voicemail has previously been brought to the user's attention and will therefore avoid notifying the user a second time.

[0008] In an alternative embodiment of the present invention, the network itself registers that the wireless device has acknowledged the receipt of voicemail notification message corresponding to particular unheard voicemail messages and will thus refrain from sending further voicemail notification messages for same unheard voicemail messages. Voicemail notifications are stored at a voice mail system, which communicates with the mobile switch the wireless device is currently connected to. When a wireless device moves into a network, the mobile switch receives a notification message from voice mail system that a voicemail message is waiting and sends this to the wireless device. In this embodiment, when the wireless device acknowledges the voicemail message notification, the mobile switch sends this acknowledgement to the voice mail system. The voice mail system then registers that the present voicemail message notification has been acknowledged and will not require any mobile switch subsequently connected to by the wireless device to notify the user of this voicemail message. In this way, a single acknowledgement prevents further voicemail notifications for the same message, New notification messages will however still be forwarded to wireless device and the user notified of the new message.

[0027] In step 42 voicemail system 40 checks whether any voicemail messages are waiting for a particular wireless device 12. Step 42 may be initiated based on notification that the wireless device 12 has entered a new mobile switch 10 (serving area) or based on other factors that are

known to those skilled in the art. If no voicemail message is waiting in step 42 the process ends. Conversely, if any voicemail messages are waiting, the method next moves to step 44. In step 44 the voicemail system 40 checks whether all the voicemail message notifications have previously been delivered. Delivery as used herein indicates that a voicemail message notification was sent to wireless device 12 and was acknowledged by the wireless device.

[0028] Preferably a flag exists for voicemail messages that have been previously[[]] delivered (notified) and step 44 knows of said previous deliveries based on said flag. If a previous delivery has been sent voicemail system 40 next moves to step 46, which stops the process.

[0029] Conversely, if any voicemail messages for wireless device 12 have not been previously delivered (notified), voicemail system 40 moves to step 48 in which a voicemail notification is sent to mobile switch 10.

[0033] Voicemail system 40 received the acknowledgement from mobile switch 10 and in step 62 marks the voicemail message or messages as being delivered (notified). Voicemail system 40 will thereafter not send voicemail notifications to wireless device 12 unless a new voicemail message is received.

[0034] In operation, the alternative method of FIG. 2 will therefore only send a voicemail notification that the voicemail message is waiting a single time. After this first notification has been sent and an acknowledgment received, the voicemail message is marked to indicate that it has been delivered (notified) and thereafter its notification will not be re-sent.

[0035] The present invention therefore overcomes the disadvantages of the prior art by providing a method on a wireless device to check whether a voicemail message has previously been Application No. 10/727,847 Response Dated 03/20/2008 Reply to Office Action of 12/21/2007

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received. Alternatively, a voicemail system 40 stores information whether the voicemail message has previously been delivered (notified). In both cases the user is not notified repeatedly of the same message, thereby solving a problem with current wireless devices.